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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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BIRCH STEWART KOLASCH & BIRCH PO BOX 747 FALLS CHURCH, VA 22040-0747				
			EXAMINER AMINI, JAVID A	
			ART UNIT 2672	PAPER NUMBER 11

DATE MAILED: 12/16/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

09/256,368

Applicant(s)

SATO ET AL.

Examiner

Javid A Amini

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 29 August 2003.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1,2,4 and 5 is/are pending in the application.
- 4a) Of the above claim(s) 6-16 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1,2,4 and 5 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. §§ 119 and 120**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☐ All b) ☐ Some \* c) ☐ None of:  
1. ☐ Certified copies of the priority documents have been received.  
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).  
\* See the attached detailed Office action for a list of the certified copies not received.
- 13) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application) since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.  
a) ☐ The translation of the foreign language provisional application has been received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_\_
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) \_\_\_\_\_ 6) ☐ Other: \_\_\_\_\_

***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 1,2 and 4 rejected under 35 U.S.C. 102(e) as being anticipated by Nagy.

1. Claim 1.

As for claim1, “A color characteristic description apparatus for producing color characteristic data for use when supplied image is converted into output image data, comprising: a lookup table of color characteristic data, wherein said lookup table is composed of only characteristic points which indicate the relationship between supplied image signals and output image signals which are determined to be impossible to be developed in a table development process which is performed when said lookup table is developed into a multidimensional lookup table; Nagy in abstract discloses a method and apparatus for producing output values corresponding to pixels of an input image. And also Nagy in col. 2, lines 3-5 discloses that the output value represents a multidimensional lookup of the color components interpolated into multidimensional space.

The following step of “wherein color characteristic data which is produced by said characteristic description apparatus contains, in addition to said lookup table, an identifier for identifying a table development method which is employed when said lookup table is developed into the multidimensional lookup table”. Nagy in col. 11, lines 25-45 discloses that the point

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560 in Fig. 5a identifies the lower, left, front location of the texture volume 555. For example, if the point 560 were at location (0,0,0) in the texture memory 235, the texture volume 555 would be comprised of texture memory locations (0,0,0), (0,0,1), (0,1,0), (0,1,1), (1,0,0), (1,0,1), (1,1,0) and (1,1,1).

2. Claim 2.

As for claim 2, "A color characteristic description apparatus according to claim 1, wherein said lookup table composed of the characteristic points is described such that fundamental colors composed of primary colors of a color device having the same signal values serve as the characteristic points". Nagy in col. 13, lines 25-43 discloses that the fractional parts selected from the pixel's R, G, and B color component are applied to the point 560 (see fig. 5A) defined by the texture address 236 (see fig. 2A) to arrive at an interpolation point 570 (see fig. 6C).

One of the known multi-dimensional linear interpolation methods (e.g. the methods discussed with respect to Figs. 5b and 5c) can be applied to produce the interpolated texture output components 280, 285, 290, 295.

3. Claim 4.

As for claim 4, "wherein color characteristic data which is produced by said color characteristic description apparatus contains, in addition to said lookup table, software for performing a table development process". Nagy in col. 13, lines 44-65 discloses that the user can supply a customized LUT representing, for example, a particular printing process for a nonlinear color space transform like RGB to CMYK. With the described method a user can build the entire nonlinear printing process into a table (e.g. characterizing the paper, press, etc.), load the table into texture space, and then have a way of converting an RGB to a CMYK value that, when

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printed on paper using the printing process characterized in the LUT, would look like the RGB color displayed on the screen. The LUT is loaded as a normal texture map would be loaded into texture memory 235 supplying the number of input components (texture dimensionality) and the size of each texture dimension. For example, in OpenGL the "TexImage3D" call would be used. Conversions from RGB to CMYK and other color spaces (e.g. CMY, HSV, LUV, LHS, LAB, and YUV) and from other color spaces to RGB are well known. Therefore, it is well known how to create an appropriate conversion table; however, a path has never existed from input pixel color components to texture space to make the described color conversion method feasible prior to the device of the present invention.

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claim 5 rejected under 35 U.S.C. 103(a) as being unpatentable over Nagy, and further in view of Edge et al. (US 6,362,808 B1).

4. Claim 5.

As for claim 5, "wherein color characteristic data which is produced by said color characteristic description apparatus further contains an identifier for identifying a table development method and software for converting data developed into table into an ICC profile". See rejection of claim 1. But Nagy does not explicitly specify data developed into table into an ICC profile. However, Edge et al. in col. 4, lines 5-67 disclose that the source and destination device profile

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interpreters 202 and 208 (see fig. 2) may be implemented using any of a variety of hardware and software arrangements and are configurable for a variety of application environments. For example, if the source and destination device profiles 206 and 210 (see fig. 2) are International Color Consortium (ICC) device profiles, the source and destination device profile interpreters 202 and 208 are optionally configured to include white- and black-point parameters to account for color variations between media and colorants used by different color display devices. The source and destination device profile interpreters 202 and 208 can also be configured to include pleasing color corrections. Thus, it would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate the teaching of Edge et al. into Nagy in order to be applicable to a variety of systems and arrangements that characterize color imaging systems. The Edge et al. 's invention has been found to be particularly advantageous for transforming colors between different color imaging systems.

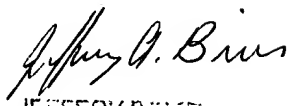
***Conclusion***

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Javid A Amini whose telephone number is 703-605-4248. The examiner can normally be reached on 8-4pm. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael Razavi can be reached on 703-305-4713. The fax phone number for the organization where this application or proceeding is assigned is 703-746-8705. Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-306-0377.

Javid A Amini  
Examiner  
Art Unit 2672

Javid Amini

  
JEFFERY BRIEN  
PRIMARY EXAMINER